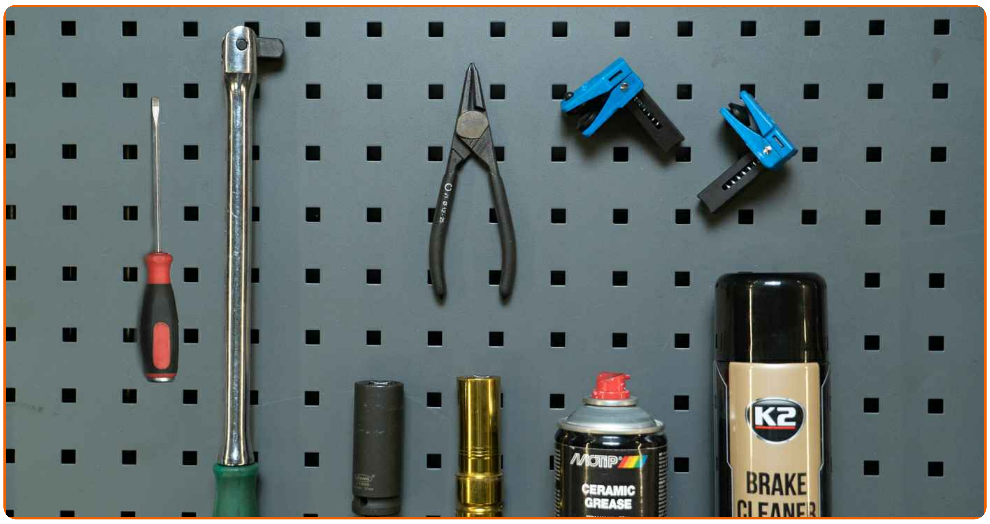
AUTODOC CLUB

How to change wheel bearing on a car – replacement tutorial

VIDEO TUTORIAL



REQUIRED TOOLS:



- Flat screwdriver
- Tap wrench
- Wheel impact socket
- Impact socket
- Ceramic grease
- Brake cleaner
- Jack
- Line stoppers
- Circlip pliers

BUY TOOLS

Please note!

- The wheel bearing allows the wheel hub to be mounted, aligned, and rotate freely on the axle
- A typical sign of wheel bearing failure is a humming noise that gets louder when turning

1 Lift up the car using a jack, jack stands, and wheel chocks; Or use a car lift



2 Remove the wheel and any parts of the brake system that obstruct access to the bearing



3 Familiarise yourself with the bearing's design



There are several types of wheel hub bearings

- Single row ball bearings and tapered roller bearings (GEN-0)
- Dual row bearings (GEN-1)
- Bearings equipped with a flange with mounting holes (GEN-2)
- Wheel hub assembly (GEN-3)

4 The wheel hub bearing assembly (GEN-3) on the drive axle is attached to the steering knuckle



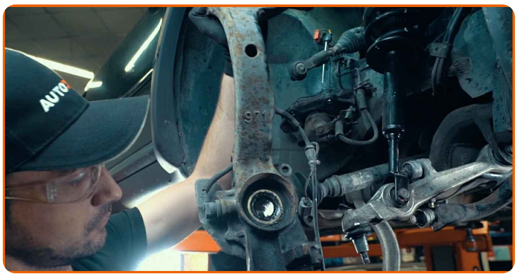
5 In order to access its fasteners you need to disconnect the CV axle



AUTODOC experts recommend:

- The CV axle fastener is easier to unscrew with the car on its wheels

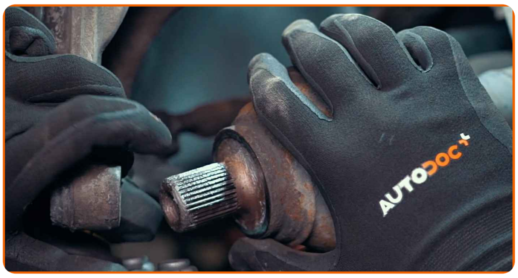
6 Depending on the car design it may be necessary to dismount the complete steering knuckle



7 It needs to be disconnected from the suspension strut, control arms, and steering components



8 Disconnect the ball joint and the CV axle



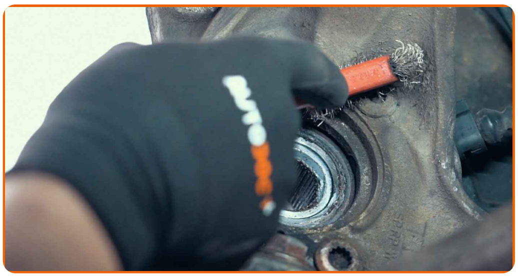
9 Move the CV axle aside



10 Use a jack to support the steering knuckle or attach it to the ball joint



11 Clean all fasteners



AUTODOC recommends:

- Tap the fasteners with a hammer to make them easier to unscrew

12 Unscrew the wheel hub bearing fastener



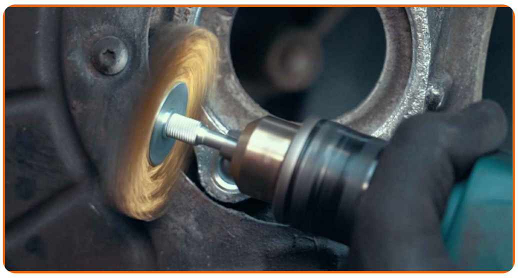
13 Remove the bearing from its seat on the steering knuckle



Please note!

- If removal is difficult, additional tools may be required

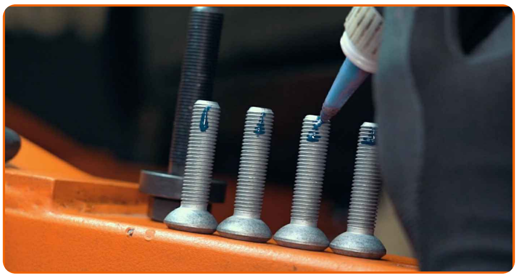
14 Clean the mounting seats



15 Proceed carefully, especially if there is an ABS sensor



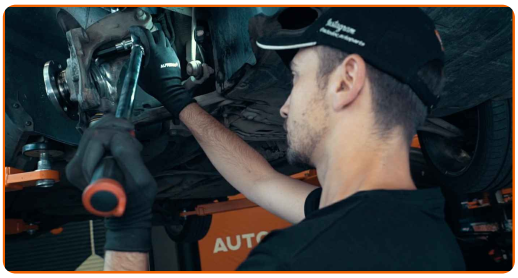
16 Be sure to use new fasteners



17 Coat the mounting surface of the bearing with a corrosion inhibitor



18 Tighten the bolts one by one, crosswise



19

A GEN-2 (flange) bearing is normally fitted in the wheel hub, which is mounted to the axle



Important!

- A special puller may be needed to remove the bearing from the axle

20

Clean the hub bearing mounting seat



21

When installing this type of bearing, you should only exert force on the inner ring



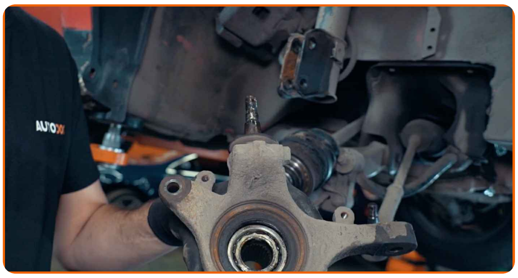
22 If the bearing is mounted on one of the drive wheels, it is necessary to dismount the wheel hub bearing assembly



23 In this case, the bearing is attached to the steering knuckle. The wheel hub needs to be pressed out of it



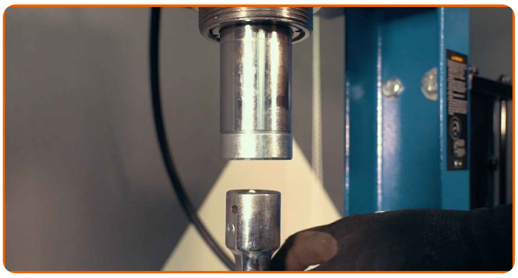
24 Replacing the double row bearing (GEN-1) requires dismounting the steering knuckle



25 In order to dismantle this assembly, first push the wheel hub from the other side to press it out, and after gaining access to the bearing, press that out, too



26 Use the press to apply the necessary force and proceed with precision



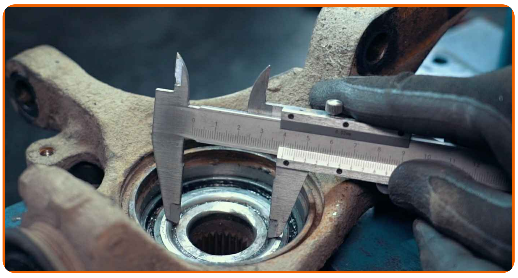
27 Position the steering knuckle on its load-bearing points to prevent deformation



28 When pressing the wheel hub out from the inner bearing ring, only apply pressure on the wheel hub



29 Determine the diameter of the wheel hub and use the appropriate sized driver



Please note!

- If the inner ring remains on the wheel hub axle, you will need a special puller in order to remove it

30 To press the bearing outer ring out of the steering knuckle, use the appropriate sized driver or the old inner ring



31 When pressing the wheel hub into the bearing, apply pressure only against the inner ring



32 Clean the work area, the mounting seats of the bearing, fasteners, and snap ring



33 One side of the bearing may contain an ABS sensor magnetic ring In that case, install it in the correct position, with the magnetic ring facing the ABS sensor



34 Make sure the bearing is level before pressing it in. Use a driver with the appropriate diameter or the old outer ring



35 Press the bearing all the way in



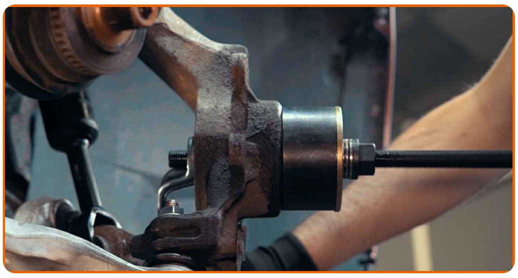
36 Press the inner ring on the wheel hub axle



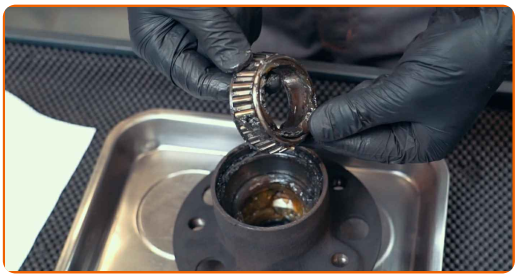
Please note!

- If no press is available, the replacement can be carried out with a slide hammer or a puller

37 Use appropriate sized drivers and a puller to remove the bearing from the steering knuckle



38 Single row bearings (GEN-0) are normally installed in pairs in one wheel hub



39 To press out the bearing rings, you need drivers with the appropriate diameter



40 Apply a suitable lubricant liberally to the bearings and their seats



41 The bearings need to be adjusted to the correct preload during installation



Caution!

- Insufficient preload may cause play in the bearing
- Excessive preload may cause the bearing to overheat during operation
- The preload should be checked again and if necessary adjusted after driving 50 to 100 km

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